DOCUMENT RESUME

ED 419 799 SP 037 963

AUTHOR	Pissalidis, Christina; Walker, Thomas; DuCette, Joseph; Degnan, James; Lutkus, Anthony
TITLE	Observational Methods for Evaluating Changes in Student-Teaching as a Result of a Large Scale Teacher Intervention Program.
SPONS AGENCY	National Science Foundation, Arlington, VA.
PUB DATE	1998-04-13
NOTE	53p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Diego, CA, April 13-17, 1998).
CONTRACT	DUE9354034
PUB TYPE	Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Cooperative Learning; Educational Change; Educational Improvement; Elementary Secondary Education; Evaluation Methods; Higher Education; *Mathematics Education; Preservice Teacher Education; Program Development; Program Evaluation; *Science Education; Student Teacher Evaluation; Student Teachers; *Student Teaching; Videotape Recordings
IDENTIFIERS	Authentic Assessment; Community College of Philadelphia PA; Philadelphia School District PA; Temple University PA

ABSTRACT

The Philadelphia Collaborative for Excellence in Teaching Education (CETP) helps develop, implement, and evaluate a new model for science and mathematics K-12 teacher preparation. It involves collaboration of two colleges and a school district. One of the collaborative's main objectives is to redesign the content and pedagogy of core mathematics and science courses so they more effectively emphasize critical instructional strategies. This paper examines whether CETP teaching behaviors are visible in student teachers' actual teaching practices. Student teachers are videotaped at three points during their program. Researchers designed instruments to assess changes in student learning over time. This includes a Demographic and Classroom Observation Survey to provide background information and capture descriptive information about actual lessons and a Student Teacher Videotape Lesson Rating Form to measure whether student teachers exhibit specific behaviors consistent with CETP goals. A Student Teacher Comment form obtains information that cannot not be obtained from videotapes (e.g., lesson goals, lesson planning, and teacher expectations). The Views on Teaching Mathematics and Science Skills form collects student teachers' views on teaching strategies. During students' field experiences, cooperating teachers complete the Cooperating Teachers Evaluation form. The assessment plan was piloted during 1997 and 1998. The major outcome of the pilots was a refinement of the assessment model. During 1998 and 1999, the model will be further piloted and refined. Appendixes contain performance standards and the evaluation forms. (Contains 10 references.) (SM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 419 799

Observational Methods for Evaluating Changes in Student-Teaching as a Result of a Large Scale Teacher Intervention Program

Christina Pissalidis
Department of School Psychology

Thomas Walker
Department of Curriculum, Instruction, and Technology in Education

Joseph DuCette
Associate Dean, College of Education

James Degnan
Measurement and Research Center

Temple University

Anthony Lutkus
Educational Testing Service

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

C. Pissalidis

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

A paper presented as part of a symposium, "Approaches to Evaluation of Reformed Based College Mathematics and Science Courses funded through NSF Collaboratives for Excellence in Teacher Preparation (CETP)" at the annual meeting of the American Educational Research Association

San Diego, California, April 13-17, 1998

The preparation of this manuscript was supported in part by a grant from the National Science Foundation

(Cooperative Agreement No. DUE 9354034)

SB374963

Observational Methods for Evaluation Changes in Student-Teaching as a Result of a Large Scale Teacher Intervention Program

Introduction

CETP objectives

The Philadelphia Collaborative for Excellence in Teaching Education (CETP) was established with the purpose of developing, implementing, and evaluating a new model for science and math K-12 teacher preparation. The Collaborative consists of the Temple University College of Education, College of Arts and Sciences, and the College of Architecture and Engineering; the Community College of Philadelphia (CCP); and the School District of Philadelphia.

The Collaborative is based on the premise that the education of teachers should be an interaction of content and methodology. Central to the program is the development and implementation of methods for teaching mathematics and science as dynamic systems of connected principles and ideas constructed through exploration and investigation. The four principle objectives of the program are:

1. To create a community of scholars dedicated to changing the way mathematics and science are taught. This community of scholars from all educational levels will participate in pre-service courses, in-service institutes, and clinical experiences.
2. To develop an improved Teacher Preparation Model through collaboration among The School District of Philadelphia, Temple University, and the Community College of Philadelphia. The model is designed to ensure that K-12 teachers have the competence to teach mathematics and science using appropriate instructional materials, new technologies, and inquiry and discovery-intensive methodologies.
3. To evaluate and institutionalize the components of this project. These components include new courses, pre-service practica, and a Math and Science Resource center. Together, these components will provide a comprehensive curriculum for improving math and science teaching at all grade levels.

4. To develop a K-12 teacher training model which, though developed in a large urban district, has the potential to become a national model particularly for elementary and middle school teacher training.

One of the main objectives of the Collaborative was to redesign the content and pedagogy of selected core college courses in mathematics, the natural sciences, and environmental science so that they focus more effectively upon critical instructional strategies. The particular changes which are recommended for the Philadelphia CETP courses were based on the results of research on science education as exemplified by the NCTM Standards in mathematics and the standards recommended as part of Project 2061-- the national science initiative.

Background and Context

As part of the CETP effort, the College of Education began a two-year planning and program development effort to completely modify the existing program for certifying elementary school teachers. This effort produced a new program design based on 6 core elements, which are viewed as being consistent with CETP standards. These are:

1. Diversity With appropriate support, all children can learn in heterogeneous classrooms. In the classroom, as in society, diversity is a resource for learning, not an obstacle to be overcome. Effective teaching is both culturally responsible and responsive. In addressing student diversity, effective teachers create pedagogical strategies that are founded on principles of social, cognitive, emotional and intellectual development.
2. Democracy The same principles that regulate the ways that citizens relate to each other and to their institutions in the larger society should operate in all classrooms. Teachers do not abdicate authority, nor do they invoke that authority in an arbitrary and authoritarian manner. Effective teachers equip students to operate effectively and productively as citizens, workers and intellectuals, able to define problems and propose solutions independently.

3. Authenticity Learning is best facilitated through well-structured activities that challenge learners intellectually, academically, socially and affectively. Effective teachers use real -- i.e., substantive-- problems for learners and set explicit expectations for learning. Sequences of activities articulate a coherent curricular whole. Effective teachers make use of their thorough knowledge of pedagogical content to construct and sequence curricular activities.
4. Academic Rigor Given well-structured activities, all children can engage difficult material successfully. At all levels of schooling, effective teachers ground learning in thorough knowledge of subject matter and in the ways of knowing that characterize academic disciplines. Effective teachers connect subject matter and ways of knowing to the authentic learning activities constructed in the classroom.
5. Accountability Effective teaching is demonstrated through successful learning. To ensure that learning, effective teachers make use of a wide variety of demonstrably effective teaching strategies. In particular, effective teachers know and use current instructional and assistive technologies.
6. Reflective Practice Effective teachers are life-long learners. They connect their day-to-day activities to a coherent social, philosophical, and political framework. They research their own practice. They participate in the professional and academic activities of their academic and professional communities. They are aware of the social and institutional contexts that constrain their practice and work with those institutions to alter those constraints.

The realization of CETP objectives should result in significant improvement in teacher performance. In comparison to non-CETP participants, CETP participants should a) have more positive attitudes toward math/science, b) perform at high levels academically within given domains, c) teach more effectively than non-participants.

The specific purpose of this paper is to focus on the third objective listed above. In particular, are the teaching behaviors suggested by the grant visible in the actual teaching practices of student-teachers? A multimethod assessment approach is being adopted by the College of Education as a way of measuring the implementation of these theories in actual practice. A three-stage assessment model has been developed which has the potential to ensure that all candidates are performing at acceptable levels prior to certification. In addition, videotape analyses, observational techniques, and questionnaires have been developed to assess whether the pedagogical techniques recommended by the CETP are implemented and accepted by student-teachers.

What follows is a brief overview of literature that focuses on the theories underpinning the philosophy of the Philadelphia CETP, namely cooperative learning and constructivist teaching, and a general description of one aspect of assessment, namely videotaping, as a form of authentic assessment. The intention of this review is to present the type of information that was considered by the faculty group when it developed the new undergraduate program and the new series of math and science courses in Arts and Sciences.

Literature review

Constructivist theory of learning

At the broadest level, the vision of the CETP draws on constructivist theory. Constructivist learning theory focuses on the construction of knowledge rather than the transmission of knowledge. There are three fundamental principles of constructivism. The first principle states that students create their own representation of knowledge based on their personal experiences. Knowledge is acquired through the active participation of the learner, therefore, students need to be engaged in activities in order to develop mental models. Second, constructivists believe that learning occurs when students interact with the environment and uncover discrepancies between their representation of knowledge and their experiences. The role of the classroom teacher is to guide the student in modifying his or her representations. Lastly, it is believed that learning occurs within a social context. Interaction between peers and adults is a

requirement for learning. Vygotsky's theory on the Zone of Proximal Development further defines the third principle. The theory states that students should be presented with experiences that are just beyond their capacities which can be completed with assistance from someone who is more knowledgeable (Gannnaway, 1994).

Cooperative learning

While the vision of the CETP is based on constructivist theory, specific goals of the Collaborative are based on the principles of cooperative learning. Cooperative learning is an approach to teaching that requires students to work in teams in order to master academic materials (Slavin, 1995). The classroom environment and the learning process are structured to reflect intergroup acceptance under conditions of equal status (Arends, 1991). The main features of the cooperative teams are: (a) group composition, (b) reward contingencies, and (c) types of interactions within the groups.

The first characteristic of cooperative learning is composition of the groups. Although research is not conclusive, it does seem to support the use of heterogeneous over homogenous grouping. Nastasi and Clements (1991) review research that further defines the characteristics of heterogenous groups. Data suggest that low-ability students receive more explanation and are exposed to various problem solving strategies in heterogenous groups and, therefore, benefit from working with students of various ability levels (Webb, 1991). High-ability students learn more by working in heterogenous groups of low- or medium-ability students than working alone or working in homogeneous groups. Medium-ability students tend to do better in homogeneous groups or groups where the range of abilities is moderate. That is to say, medium-ability students would do best when grouped with low-ability students *or* high-ability students, but not with both ability levels in one group (McManus & Gettinger, 1996). In summary, data seem to indicate that heterogeneous grouping will benefit students whose abilities range moderately, (i.e., high-ability with medium-ability, low-ability with medium-ability), while homogeneous grouping might benefit medium-ability students the most (Nastasi & Clements, 1991).

Reward contingencies define and distinguish cooperative learning groups. There are three types of reward structures: (a) students are rewarded for their individual success, independent of the group; (b) the group is rewarded for its collective success, regardless of any individual's contribution; and (c) the group is rewarded for the success of an individual member. Rewarding the group based on the success of the individual is the most effective form of reward structure (McManus & Gettinger, 1996).

The types of student interaction in a cooperative learning group can differ depending on how tasks are structured. Task structures are situations where students are required or allowed to work together, coordinating their efforts to varying levels in order to complete a task (Ardend, 1991). Nastasi and Clements (1991) organized the task structures into four categories of cooperative learning groups: (1) team learning, where the teacher established learning goals for the student and directs them to assist teammates in learning the goals; (2) expert groups, which requires students to teach material to other students; (3) collaborative task completion, which requires students to coordinate their own efforts toward accomplishing a task that has been assigned by the teacher; and (4) collaborative problem solving, or Group Investigation, where students decide not only *how* to solve a problem but select *what* problem to solve.

Authentic assessment

Traditional paper-pencil tests provide a standardized measure of student understanding and allow comparisons to be made within and between groups. Standardized tests are quick to administer and provide a broad, objective measure of the level of student achievement. Nevertheless traditional approaches have been criticized for measuring skills that have little relevance outside the classroom (Archbald, 1991; Burke, 1996). Oftentimes traditional assessment approaches have led to teaching styles which break content down into its elemental parts and stress general mastery of only isolated skills. Similarly, traditional measures of achievement require students to recall factual and fragmented pieces of information rather than to construct knowledge based on higher order thinking skills.

Some of the limitations of traditional approaches can be countered by authentic assessment. Authentic assessment uses systems of integrated tasks to measure student knowledge. There is no standard definition for authentic assessment but there are central themes in the various definitions. Archbald and Newmann (1988) outlined three criteria to define authentic assessment: (a) disciplined inquiry, (b) integration of knowledge, and (c) value beyond evaluation. Disciplined inquiry is the formation of ideas that results from an in-depth understanding of the situation and critical reasoning. Integration of knowledge is the process of creating connections between previously isolated facts so that students form a comprehensive network of ideas. The last criteria, value beyond evaluation, is achieved when the accrued value of the task exceeds that which would have resulted simply from completing the task. In comparison to traditional assessment methods that foster reproduction of knowledge, authentic assessment requires students to apply knowledge and skills. Rather than memorizing isolated facts, authentic assessment enables students to become actively engaged in activity and to construct knowledge that is personalized and meaningful (Christenson, 1991). Authentic assessment improves performance by integrating knowledge and performance through the use of higher order thinking skills (Archbald, 1991).

Authentic assessment has been criticized for definitional and psychometric deficits (Gersham, 1991). In particular, criticisms have centered on the issues of what characterizes "authentic" performance, and the issue of who judges authenticity? An operationalized definition needs to be developed to measure the reliability and accuracy of the approach. Moreover, as Gersham points out, authentic assessment lacks adequate psychometric features.

Elliott (1991) described various types of authentic assessment. Forms of authentic assessment that require students to apply their knowledge and skills to produce a result are referred to as performance assessment. Some examples of performance assessment include recitals, plays, oral reports and videotape performances. Portfolios are collections of papers, projects, and other works that have been completed by the student and are used to document ongoing student learning.

Exhibitions, the broadest application of authentic assessment, require students to synthesize skills and knowledge from various areas. The Right of Passage Experience, for example, requires high school seniors to develop a portfolio, to complete a project, and prepare a presentation to demonstrate competency of targeted areas.

No one form of assessment can provide the best means of assessment. A combination of both traditional and authentic assessment techniques provides the best model for achieving a full understanding of student learning. The Philadelphia CETP has combined traditional style tests and authentic assessment approaches in an effort to obtain a more thorough understanding of what students have learned and are capable of doing. The Philadelphia CETP expects that an authentic assessment forum that includes videotaping of student-teacher lessons, will provide a full picture of what students know, what they have learned, and what they can do.

Videotapes

Videotape recordings have certain advantages and disadvantages. A unique benefit of videotapes is that they capture contextual information, such as facial expression, which cannot be captured by paper-and-pencil techniques. Furthermore, unlike written measures which rely on the participant's ability to communicate, videotapes allow for a more comprehensive description of a given situation. Since video recordings preserve contextual information and capture a situation in great detail, they allow researchers to do an in-depth analysis of the content. Byra and Coulon's (1992) research study serves as a good example of how to maximize the benefits of video data. They used videotape recordings to research the effects of planning on the effectiveness of teaching behaviors. Data derived from the videotapes were analyzed quantitatively. Interval recordings provided information on the specific use of class time, and frequency recordings determined the number of times a specific behavior occurred. Byra and Coulon also obtained qualitative data about teacher behaviors, such as arrangement of environment, number of cues, and teacher feedback.

The advantage of having captured detailed information about a given situation becomes a limitation when the time comes to code and interpret data. The challenge is

to select the right process which will yield appropriate data for further analysis. Having a well defined research question helps limit the information that needs to be analyzed. Adams (1993) used videotapes as her data collection method in trying to understand how teachers establish cognitive goals for students. She avoided the problem of having too much data by first identifying episodes in the videotapes from which inferences could be made. She then coded the types of inferences that were made according to predefined criteria. Her approach limited the amount of data that she had to analyze while affording her the opportunity to select appropriate episodes from a complete sample of behavior that actually occurred. Had she used observational techniques that selectively recorded events, such as written narratives or questionnaires, her data would have been limited.

Methods

Procedures

Faculty members in the College of Education committed themselves to implement a systematic way to evaluate prospective teachers during student-teaching. One of the critical ways that students would be assessed is through videotaping students during student-teaching. While this idea is still considered important, the faculty group realized that one of the core elements of the new undergraduate program had to be a complete revision of the procedures by which students are assessed as they progress through the program. The discussion, therefore, moved from the narrow view of focusing on performance assessment in student teaching, to a broader conceptualization which envisions a three-stage evaluation process. These stages move from formative to summative evaluation, and assume that a pre-service teacher should demonstrate an increasingly complex and sophisticated approach to teaching.

In the proposed three-state model, students are judged at three points in their program against stated performance standards divided into three levels. These levels are:

1. Novice: Education theory and practice is sporadically integrated in the teaching. The teacher cannot explain, with any facility, how learning results from specific teaching actions and decisions.

2. Intermediate: Education theory and practice are present, but drawn on inconsistently in the teaching. The teacher can explain, with some facility, how learning results from specific teaching actions and decisions.
3. Advanced: The best of education theory and practice is integrated in the teaching. The teacher can explain, with considerable facility, how learning results from specific teaching actions and decisions.

The three assessment points occur at the beginning, middle, and end of the student's program. The first assessment occurs during the first or second course taken in the education sequence (usually in the freshman or sophomore year). At this point, the student will have taken some, but probably not all of the CETP math and science courses in Arts and Sciences and will have experienced one field placement in a school. The student will be expected to demonstrate only a minimal level of expertise at this point, and the evaluation will be considered essentially formative.

The second assessment point will occur at the entrance to the actual certification program (prior to the methods courses, a point which occurs typically in the junior year). This assessment will be largely formative, but may be summative in that the faculty will be asked to make a judgement as to whether the student should be admitted into the certification program. In addition, this point will allow the student to re-assess whether teaching is a desired career goal. Students will be videotaped at this point presenting a prescribed lesson in either math or science. This videotape will serve as a baseline assessment for comparison to the final taping during student teaching.

The final assessment point, which will be largely summative, will occur during student teaching. At this point, the various assessment data described below will be collected, and the student will be videotaped for the second time.

At each of the stages described above, students are assessed against standards in the core elements which undergird the new program. It is assumed that these standards will be elaborated and extended with use, and that eventually a fully developed model will be accepted. A preliminary model of the standards that will be used in the new program is contained in Appendix A.

Measures

The instruments have been designed in accordance with the Philadelphia CETP standards for teaching and are based on nine standards: (1) learning through group work; (2) providing opportunities for hands-on training; (3) encouraging the use of new technology; (4) encouraging students to research, present, and assess group work; (5) connecting real-life events to the teaching of mathematical and science principles; (6) promoting communication; (7) discussing how topics apply across disciplines; (8) highlighting the process of science and mathematics; and (9) encouraging critical thinking. Operational definitions of each of the nine standards were written and incorporated into each of the instruments which are described below. (See appendices B through F).

The instruments have been developed to assess changes in student learning at the Intermediate and Advanced levels. At the Intermediate level, student-teacher performance and student-teacher preferences toward teaching methods will be assessed. Data will be collected using authentic assessment and traditional assessment techniques. At the Advanced level student-teacher performance will be assessed through videotapes and cooperating teachers' observations of the student-teacher performance.

Three clusters of instruments and procedures have been developed to measure student-teacher growth in the areas related to the goals of the CETP. These clusters include: (a) instruments associated with student-teacher performance from videotaped lessons (Appendices B through D), (b) questionnaires related to student-teachers preference for instructional methods (Appendix E), and (c) instruments developed for cooperating teachers to rate student-teacher performance (Appendix F). The instruments and procedures are described below.

Student-teacher performance from videotaped lessons.

For program assessment purposes, student-teachers will be videotaped on two occasions -- prior to entrance to the certification program, usually during sophomore or

junior year, and then again during student-teaching, usually during their senior year. For each occasion student-teachers will be instructed to prepare and then present a 15 minute lesson on a specified topic. Performance of CETP and non-CETP students will be compared. Each videotaped lesson will be analyzed based on the nine objectives of the CETP using the following three instruments:

Demographic and Classroom Observation Survey (DCOS)

A Demographic and Classroom Observation Survey (DCOS) was developed to provide background information about student-teachers whose lessons have been videotaped and to capture descriptive information about the actual lesson. Part A of the DCOS consists of 12 questions pertaining to the characteristics of the student-teacher and the environment in which the actual lesson might occur. Part B consists of five categories of questions related to classroom environmental issues such as: space and seating arrangements, teacher movement, modes of instruction, instructional materials, and methods of learning (see Appendix B). Two faculty members from sections of the course associated with student teaching will review each videotape. Inter-rater reliability indices will be computed for Part B.

Student-Teacher Videotape Lesson Rating Form (STVLR)

A Student-Teacher Videotape Lesson Rating Form (STVLR) was constructed to measure whether the student-teacher exhibited specific behaviors that are consistent with the goals of the CETP (see Appendix C). The STVLR consists of nine questions which relate to each of the nine standards of the CETP. Each question consists of two parts. The first part asks if a specific behavior was observed. If the behavior is observed, the rater will be asked to rate the degree to which the behavior formed a positive component of the lesson. Ratings are made on a four-point Likert scale that range from strongly agree to strongly disagree. At least two faculty members will rate each videotape and inter-rater reliability indices will be computed. Ratings for CETP and non-CETP student-teachers will be compared.

Student-Teacher Comment Form (STCF)

Videotapes are limited to 15 minutes and therefore cannot provide a complete picture of a student-teacher's effectiveness. Only rough estimates can be made about how well the behavior sampled in the videotape can approximate activities that would occur in a natural setting. The recordings do not provide an accurate estimate of the effects of prior activities, such as homework assignments, grading, earlier lesson presentations, etc. on the current lesson. Another limitation of the data provided by videotapes is that they only capture observable behavior. Activities such as planning goals, forming groups, and developing strategies for instruction cannot usually be represented on videotapes.

To account for the shortcomings of the videotaped data, the Student Teacher Comment Form (STCF) was developed to obtain information which could not be obtained from the videotapes. The STCF (see Appendix D) will be completed by the student-teacher. The six open-ended questions in the STCF ask the student-teacher to respond to the following issues: (1) Goals of the lesson, (2) How the lesson fits into the sequence of lessons in that unit, (3) Planning that went into preparing for group work, (4) Strategies that were used to relay information and concepts, (5) Types of tasks that were assigned, and (6) Teacher's expectations of student performance. The STCF will be given to the Faculty reviewers of the videotapes to assist them in understanding the intentions and context of the student-teacher's lesson.

Views on Teaching Mathematics and Science Skills (VTMSS).

The Views on Teaching Mathematics and Science Skills (VTMSS) form consists of 12 questions. The first 11 questions are comprised of two statements that describe either a traditional and a reformed teaching strategy (see Appendix E). Student-teachers indicate their preference for teaching styles using a seven-point scale. Question 12 asks the respondents to estimate the percentage of time students should spend listening to lecture, working individually, and interacting with peers. The data collected on self-report will be correlated with the responses from the faculty

evaluations of the videotaped lessons and preferences in teaching styles will be compared for CETP and non-CETP participants.

Cooperating Teacher's Evaluation.

During the student's field experience, cooperating teachers are asked to complete the Cooperating Teachers Evaluation form (CTE) (see Appendix F). The CTE has been in use by Temple University for five years. Nine questions which characterize the philosophies of the CETP will be added to the CTE. These questions ask the cooperating teacher to indicate whether activities related to the nine goals of the CETP have been observed in the student-teacher's lessons. Each question requires a response which indicates that the behavior was "never," "occasionally," or "regularly" observed. The performance of CETP-trained and traditionally-trained teachers will be compared.

Conclusion

Progress to Date and Future Plans

The plan for assessment of the pre-service teachers was implemented on a pilot basis during the Fall 1997 and Spring 1998 semesters. The major focus of this assessment was on students who were enrolled in student-teaching. To a large degree this assessment was used to establish a baseline for future comparisons, since few students who have taken the revised CETP courses are currently taking student-teaching. The purpose of these pilot implementations was to ascertain if the assessment rubric could be implemented in practice. There were several specific questions asked: (1) Was the preliminary model used to construct the coding scheme for the videotaped teaching segments adequate, (2) Could the videotaped teaching segments be reliably coded , (3) Under what conditions should the teaching segments be conducted? For example, should students be allowed to choose a topic to present, or should all students be given a consistent assignment?

The major outcome of the two pilot implementations has been a refinement of the model used for assessment. The attempt from the start has been to use a system

which would be consistent with and reflect the goals of the CETP program. This system took the form of performance standards in several areas. With refinement, the system now includes assessment of five areas. It is assumed that expert teaching: (1) facilitates active learning, (2) exhibits coherence/continuity, (3) promotes critical/creative thinking, (4) enhances real-world connections, (5) involves reflective thinking. A preliminary list of performance standards, structured around the Novice/Intermediate/advanced categorization mentioned earlier in this paper, is contained in Appendix A.

During the Fall 1998 and Spring 1999 semester, the assessment model will be further piloted and refined. In addition, the second level assessment (prior to the methods sequence) will be piloted using the model already developed. Since a larger cohort of students who have participated in the CETP courses will be involved in student-teaching, comparison can be made between these students and non-CETP students. By the end of the Spring 1999 semester, full implementation of the assessment model will be applied to all in-coming students.

REFERENCES

Adams, V. (1993). Teacher talk: Cognitive goals inferred from instruction. Paper was presented at the Annual Meeting of the National Council of Teachers of Mathematics, Seattle, WA. (ERIC Document Reproduction Service No. ED 364432).

Archbald, D. A. (1991). Authentic Assessment: Principles, practices, and issues. School psychology Quarterly, 6(4), 279-293.

Archbald, D. A., & Newmann, F. M. (1988). Beyond standardized testing: Assessing authentic academic achievement in the secondary school. Reston, VA: University of Wisconsin-Madison, National Association of Secondary Principals.

Burkes, K. (1996). The mindful school: How to assess authentic learning. IRI/Skylight Training and Publishing.

Byra, M, & Coulon S. C. (1992). Preservice teachers' in-class behaviors: The effects of planning and not planning. Paper was presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 348355).

Christenson, S. L. (1991). Authentic assessment: Straw man or prescription for progress? School psychology Quarterly, 6(4), 294-299.

Elliott, S. N. (1991) Authentic assessment: An introduction to a neobehavioral approach to classroom assessment. School psychology Quarterly, 6(4), 273-278.

Gannaway, G. (1994). Transfroming Mind: A Critical Cognitive Activity. Connecticut: Bergin & Garvey.

Gersham, F. M. (1991) Alternative psychometrics for authentic assessment? School psychology Quarterly, 6(4), 305-309.

Roelofs, E., & Terwel, J. (1997). Constructivism and authentic pedagogy: State of the art and recent developments in the Dutch national curriculum in secondary education. Paper presented at annual meeting of American Educational Research Association, Chicago, IL. (ERIC Document Reproduction Service No. ED 410214).

APPENDIX A

Temple University College of Education Performance Assessment for Undergraduate Teacher Education: Overview of Performance Standards for Teaching

Temple University College of Education Performance Assessment for Undergraduate Teacher Education: The Assessments

Temple University

College of Education

Performance Assessment for Undergraduate Teacher Education

A Status Report to the
Undergraduate Committee and Ambler Planning Group

by

The Performance Assessment Committee

Stephen Krulik
Lynda Price
James J. Roberge
Thomas J. Walker

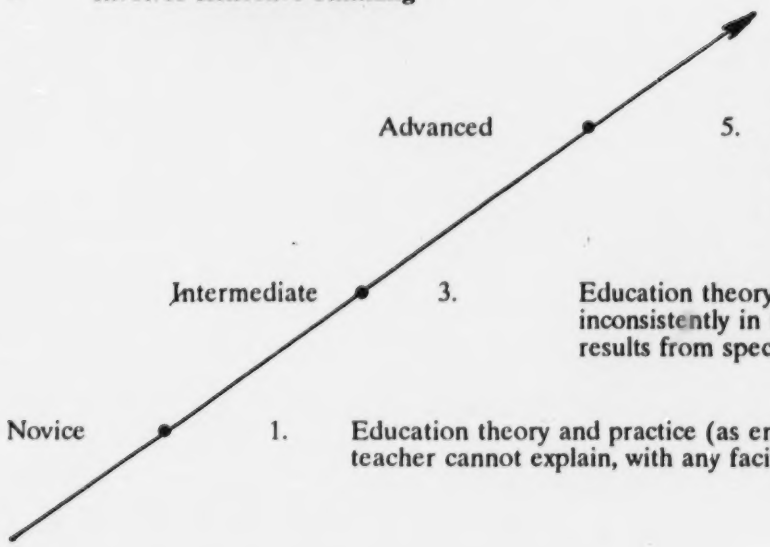
March 4, 1998

Temple University
College of Education, Undergraduate Teacher Education

Overview of Performance Standards for Teaching

Teaching for all students that...

- Facilitates **Active Learning**
- Exhibits **Coherence/Continuity**
- Promotes **Critical/Creative Thinking**
- Enhances **Real-World Connections**
- Involves **Reflective Thinking**



Advanced — 5. The best of education theory and practice (as embodied by the 5 standards) is integrated in the teaching. The teacher can explain, with considerable facility, how learning results from specific teaching actions and decisions.

Intermediate — 3. Education theory and practice (as embodied by the 5 standards) is present, but drawn on inconsistently in the teaching. The teacher can explain, with some facility, how learning results from specific teaching actions and decisions.

Novice — 1. Education theory and practice (as embodied by the 5 standards) is sporadically integrated in the teaching. The teacher cannot explain, with any facility, how learning results from specific teaching actions and decisions.

(Revised 3/2/98)

Revised 3/2/98

Performance Standards

Performance standards, as defined here, are measures for gauging the extent to which students are integrating and internalizing specialized teaching knowledge from the undergraduate program domains. The following 5 standards associated with skillful teaching will be assessed:

Teaching for all students that...

1. **Facilitates Active Learning:**

   Competence in involving students in lessons by providing a non-threatening environment which allows them time to ask questions, seek solutions, share thinking about a theme or topic, and respond to other's viewpoints. The ability to arrange learning by doing. Achievement is demonstrated through applications, reporting, and student exhibitions.

2. **Exhibits Coherence/Continuity:**

   The ability to plan and teach using an uninterrupted flow of ideas and/or information. Learning experiences and activities for students are systematic and show a logical connection and consistency. Diverse elements, relationships, and values are all integrated.

3. **Promotes Critical/Creative Thinking:**

   The ability to teach a lesson's key concepts and ideas in depth, and use practices through which students are encouraged to be critical/creative thinkers. Students are taught to draw conclusions, develop arguments, and construct explanations for others about the subject being taught. The learning environment inspires students to develop innovative, unusual, and unique ideas and strategies.

4. **Enhances Real-World Connections:**

   The ability to situate learning in a real-world context; for example, to connect classroom instruction to events beyond the classroom. The real value of subject matter is heightened for students through activities that combine the classroom instructional context with real-world application.

5. **Involves Reflective Thinking:**

   The ability to analyze the effects of one's own teaching in order to adjust and improve it. Being able to describe and explain teaching principles and theory, and diagnose how and why specialized teaching knowledge works to enhance students' performance.

(5) The lesson engages students by providing them with the following: time to ask questions, seek solutions, share their thinking about a theme or topic, and respond to other viewpoints. The lesson expects learning by doing. Achievement is demonstrated through applications, reporting, and student exhibitions.

- Opportunities are provided throughout the lesson for students to discuss topics and concepts with one another as well as with the teacher.
- The teaching engages students in constructing knowledge and communicating it to others. Methods such as small group discussions, educational technology, and cooperative learning may be used to involve students in exploring topics deeply (i.e., going beyond reporting facts, definitions, and procedures).
- Instruction draws out and builds on the knowledge that students' already possess about a theme or topic so it can be used as a source for learning.
- Reporting activities, projects, exhibits, and assessments require students to go beyond demonstrating that they know about a theme or topic, and demonstrate they can apply knowledge to new situations.

(3) Students are involved in the lesson, but their participation is uneven. Students' conversations, reporting, and active participation are sporadic. Most of their involvement is scripted, thereby limiting the quality and depth of experiences designed for involving them in mutually active, two way communication.

(1) The lesson does not embrace a context for learning that values substantive input by students. The lesson relies primarily on one-way communication by the teacher (e.g., lecture) for delivering a predetermined body of information. Student reporting and active participation are negligible.

COHERENCE/CONTINUITY

(5) **The lesson represents an uninterrupted flow of ideas and/or information (i.e., it is orderly). Learning experiences and activities are systematic. They show a logical connection and consistency; diverse elements, relationships, or values are all integrated.**

- The lesson is clear. There is an identifiable framework of learning experiences, activities, teaching methods, and assessments for achieving the intent of the lesson.
- The instruction is focused at the appropriate level of difficulty for students, that is, it considers previous learning and lessons that will follow. The instruction is sensitive to how students learn and develop, and includes learning experiences that support their intellectual and social development.
- Content from the discipline(s) being taught is integrated in learning experiences in such a way that the subject matter is made meaningful for students.
- The lesson unites learning theory and teaching strategies and creates a positive learning environment with high expectations and high standards for all students.

(3) **The lesson is not completely logical or consistent. The subject matter, teaching strategies, learning experiences, and activities are not all logically connected to one another. There are interruptions in the continuum of experiences designed to progress students toward a deep understanding of the topic.**

(1) **The lesson is a disjointed mixture of ideas and experiences. Learning experiences and activities are not systematically developed, nor do they show a logical connection and consistency. The diverse elements, relationships, or values are not integrated.**

(5) Key concepts and ideas for the lesson are covered in depth. Students are guided to be critical/creative thinkers through activities that require them to explain and use knowledge. The teaching encourages students to draw conclusions, develop arguments, and construct explanations for others about the subject matter being taught.

- The lesson includes higher order thinking strategies, activities, and opportunities that enable all students to manipulate information and ideas and generalize tasks to new situations.
- Ideas, concepts, and analyses are developed and assessed. Learning activities build on prerequisite information and student knowledge; critical/creative thinking skills are addressed developmentally.
- Opportunities are included for students to discuss and reflect on the process of learning; all students in the class are allowed time to explain and use knowledge in new situations.
- The learning environment encourages students to develop innovative, unusual, and unique ideas and strategies.

(3) Key concepts and ideas are present, but unevenly developed. Students are exposed to some higher order thinking strategies like analyzing and synthesizing information; however, the majority of activities are at the recall and comprehension level and tend to be teacher directed.

(1) The subject matter covered in the lesson is superficial. The concepts and ideas are fragmented. Critical/creative thinking is scarce and the lesson employs mostly teacher-centered strategies.

Standard
REAL-WORLD CONNECTIONS

(5) **The lesson connects classroom instruction to the world beyond the classroom. The real value of subject matter is heightened for students through activities that combine the classroom instructional context with real-world applications.**

- Activities are present for all students to research and learn about the lesson and connect it to authentic, real-life situations.
- The lesson draws on students' personal experiences as a context for applying knowledge.
- A variety of strategies (e.g., career fairs, service learning, public and private partnerships) are used to place academic content in context and provide opportunities for application.
- Diverse learning activities representative of the larger social context in which students live are present.

(3) **The lesson connects topics sporadically to the real world. Opportunities for students to apply knowledge, independently, to real-world situations are generally absent.**

(1) **The ideas, concepts, and experiences in the lesson are not extended beyond the classroom setting to the real world. The applications are mostly textbook examples and structured around activities with little relevance to the social context in which students live.**

(5) **The reflective act (alone or with colleagues) is a rich, descriptive, and critical analysis of the teaching episode. Professional terms and principles and theories underlying how people learn are used to describe the teaching. The reflection goes beyond explaining "what" was done, and provides information about "how" and "why" specialized teaching knowledge enhanced learning.**

- Principles, theories, and contextual factors are considered in a substantive way and used to describe and explain the intention and consequences of the specialized teaching knowledge used in the lesson.
- Ethical, moral, and political issues relating to teaching and learning are considered in the explanation of the teaching episode.
- Professional terms are used correctly. The criteria associated with the appropriate use of specialized teaching knowledge are used correctly and connected properly with the relevant theories and principles underlying instruction.
- Examples of personal preference are integrated and connected appropriately with current, relevant theories and principles underlying instruction.

(3) **The reflective act is descriptive. The analysis of the teaching episode is not deep and penetrating. The events of the lesson are discussed and labeled appropriately but educational theory and practice are not brought together in a meaningful way.**

(1) **The reflective act is nondescript. At best, the analysis of the teaching episode can be characterized as a lay person's description of teaching and learning. Professional terms and specialized teaching knowledge are generally absent.**

Temple University

College of Education

Performance Assessment for Undergraduate Teacher Education

The Assessments:

Early Professional Assessment
Intermediate Assessment
Senior Assessment

Performance Assessment Committee

Stephen Krulik
Lynda Price
James J. Roberge
Thomas J. Walker

March 4, 1998

Early Professional Assessment (Level I), at the beginning of the undergraduate education program.

Context:

1. Problem-based Activity (On Demand): Teacher education majors are asked to provide written feedback on a hypothetical student's work.

2. Portfolio development begins. Possible content includes the following:

   - Essay: e.g., "Why I want to teach;" "My Philosophy of Education."
   - A videotape and a written self-reflection of a micro-teaching episode from an introductory professional education course.
   - Examples of lesson plans (teacher plans) and activities developed in introductory professional education courses.
   - Examples of best work (research papers) from introductory professional education courses and/or related courses that align with the teacher education program's knowledge domains and performance standards.

Assessment:

The 5 performance standards for teaching are introduced and adapted/applied to both the problem-based activity and portfolio.

Intermediate Assessment (Level II), prior to student teaching (typically in the internship/seminar of the junior year).

Context:

1. Problem-based Activity (On Demand): During the internship, students are asked to observe a master teacher in their discipline using the teacher education program's performance standards. After the observation, students imagine they are the teacher they just observed. Students are instructed to prepare a self-reflective essay on the teaching performance. The essays are discussed with professors.

2. Problem-based Activity (On Demand): As part of the methods courses in their discipline, students are shown 3-5 vignettes of problem situations (e.g., videotaped classroom teaching demonstrations). The students provide written responses as to how they would handle the problem portrayed in each vignette. The vignettes would be tied to the teacher education program's performance standards. The responses are discussed with a professor.

3. Portfolio development continues. Possible content includes:

    - Essay: e.g., "My Philosophy of Education." (Changes/growth can be assessed by comparing the essay to the essay of the same topic completed at Level I).
    - A videotape and a written self-reflection of a teaching episode in an early field experience.
    - Examples of lesson plans (teacher plans) and activities developed in early field experiences and/or advanced methods courses.
    - Examples of best work (e.g., research papers, curriculum materials, presentations) from professional education courses and/or related courses that align with the teacher education program's knowledge domains and performance standards.

Assessment:

The 5 performance standards for teaching are adapted/applied to both the problem-based activity and portfolio.

Senior Assessment (Level III), during student teaching.

Context:

1. Problem-based Activity (On Demand): Near the end of their student teaching assignment, students will be (a) teaching a lesson to students, and (b) discussing it with their professors. The discussion must address teacher planning and how learning results from specific teaching actions. The teacher education program's content and performance standards will guide the discussion.

2. Portfolio development continues. Possible content includes:

   - A succinct essay describing the student's educational philosophy, including examples of how the philosophy is being applied during student teaching.
   - Samples of students' work from student teaching. Examples can include: art work, tests, designs for experiments, essays, mathematical models, research papers, videotaped oral presentations, etc. Student teachers should be able to explain how their students' work ties to the teacher education program's knowledge domains and performance standards.
   - Examples of lesson plans (teacher plans) and activities developed during student teaching, and examples of written teacher feedback given to students.
   - Anecdotal reports of supervisors from the practicum and student teaching experience.
   - An anecdotal account of a professional development activity in which students participated.
   - An anecdotal account of how students handled a difficult situation relating to teaching and learning.
   - Examples of best work (e.g., research papers, curriculum materials, presentations) from upper level courses and that tie to the teacher education program's knowledge domains and performance standards.

Assessment:

The 5 performance standards for teaching are applied to both the problem-based activity and portfolio.

Performance Assessment for Undergraduate Teacher Education

Key Terms:

Intermediate Performance Assessment - An assessment activity through which students demonstrate their continued progress toward achieving the standards of the undergraduate program. The intermediate assessment is intended to supplement, not supplant, course evaluations. It is generally conducted in the junior year.

Outcomes - The professional knowledge, skill, and concepts graduates need to know and do upon graduation. Outcomes are achieved through courses and experiences, and derived from the program's general categories of competence (i.e., professional themes and threads).

Performance Standards[1] - Measures describing how well students demonstrate the material represented by the outcomes of the undergraduate program. The descriptors represent the degrees of mastery or levels of attainment on the work expected to be performed.

Early Professional Assessment - An assessment activity in which students are oriented to, and demonstrate their early progress toward, the standards of the undergraduate program. The early professional assessment is intended to supplement, not supplant course evaluations. It is conducted near the beginning of a student's program.

Rubric - An assessment scale consisting of criteria that describe student performance at various levels of proficiency for a given standard. Usually, the criteria are arranged to describe specific score points on a fixed measurement scale (e.g., 5-point scale that ranges from "less" to "more" of a standard).

Senior Performance Assessment - An assessment activity through which students exhibit achievement of the standards of the teacher education program. The senior assessment, which occurs during the student teaching semester of the degree program, enables a comparison of current candidates for graduation to the vision of the ideal graduate. The assessment is intended to supplement, not supplant, course evaluations. It also serves as an instrument of program evaluation by providing faculty with the opportunity to view its collective efforts.

---

[1] Performance standards for assessing the process, products, and analysis of teaching and learning: **Active Learning, Coherence/Continuity, Critical/Creative Thinking, Real-World Connections,** and **Reflective Thinking.**

Standard - A standard, by definition, is both a goal and a measure. It refers simultaneously to both the "model or example," and the gauge or yardstick for determining how well one's performance approximates the model or example. In the undergraduate program, performance standards are used to gauge student teachers' performance as teachers, and to determine how well their performance approximates the example of teaching described in our vision.

APPENDIX B

Temple University College of Education Demographic and Classroom Observation Form

TEMPLE UNIVERSITY
College of Education
Demographic and Classroom Observation Form
Part A

This sheet is intended to provide background information about the student-teacher whose lesson has been videotaped Please complete the demographic information on this page and the classroom observation sheet on the following page and submit it with the videotape.

Student-teacher: _____
Name of observer: _____
School: _____ **Date:** _____

School

A **Grades:**
- ☐ 1 Elementary
- ☐ 2 Middle School
- ☐ 3 High School

B **Type of:**
- ☐ 1 Private
- ☐ 2 Public
- ☐ 3 Other: _____

C **Setting:**
- ☐ 1 Inner city
- ☐ 2 Suburban
- ☐ 3 Rural

Teacher

A **Gender:**
- ☐ 1 Male
- ☐ 2 Female

B **Experience:**
- ☐ 1 Student-teacher
- ☐ 2 Pre-service teacher
- ☐ 3 Certified

Lesson

A **Subject:**
- ☐ 1 Math
- ☐ 2 Science

B **Grade level:**
- ☐ 1 Kindergarten
- ☐ 2 First
- ☐ 3 Second
- ☐ 4 Third
- ☐ 5 Fourth
- ☐ 6 Fifth
- ☐ 7 Sixth
- ☐ 8 Seventh
- ☐ 9 Eight
- ☐ 10 Ninth
- ☐ 11 Tenth
- ☐ 12 Eleventh
- ☐ 13 Twelfth
- ☐ 14 Other

Audience:
- ☐ 1 Elementary school children
- ☐ 2 High school children
- ☐ 3 Peers in college class
- ☐ 4 Role-playing adults

Part B

I. Space and seating arrangements

A How were the student's desks arranged? ☐ 1 Rows ☐ 2 Clusters ☐ 3 Circles

B Where was the teacher's desk located? ☐ 1 Front ☐ 2 Back ☐ 3 Side of room

C Was the seating rearranged?

☐ 1 Did students change seating arrangement of the room for specific activities?

☐ 2 Did students go to a designated part of room for certain activities?

☐ 3 Students did not change seats during this lesson.

II. Teacher movement

A What was the teacher's positioning through most of the lesson?

☐ 1 Stand in front of the room most of the time

☐ 2 Pace (move back and forth in front of the room)

☐ 3 Roam all around the room

☐ 4 Other

III Instruction

A The dominant modes of instruction were: ☐ 1 Lecture ☐ 2 Seatwork ☐ 3 Groupwork

B What was the dominant teaching model that was used?

☐ 1 Presentation (Helping student by presenting facts and principles.)

☐ 2 Concept teaching (Developing existing knowledge and critical thinking.)

☐ 3 Direct Instruction (Helping student acquire procedural knowledge and special skills.)

☐ 4 Cooperative learning (Increase student achievement through team activities.)

IV Instructional Materials

A What materials did the teacher use during the lesson?

☐ 1 Chalkboard ☐ 3 Slides or pictures

☐ 2 Overhead projector ☐ 4 Worksheets

B What manipulatives and technological aids were used to enhance the lesson?

☐ 1 Calculators

☐ 2 Computers

☐ 3 Manipulatives (e.g., Unifix Cubes, Cuisenaire Rods)

☐ 4 Experimental equipment

V. Methods of learning

A Indicate the patterns of behavior that characterize what the teacher did to teach and in what activities the students were engaged.

☐ 1 Lecturing ☐ 6 Student group presentations

☐ 2 Conducting discussion ☐ 7 Individual presentations

☐ 3 Demonstrating ☐ 8 Individual activities

☐ 4 Questioning ☐ 9 Group activities

☐ 5 Checking for understanding ☐ 10 Giving an exam

APPENDIX C

Temple University College of Education Student Teacher Videotape Lesson Rating Form

TEMPLE UNIVERSITY
College of Education
Student-Teacher Videotaped Lesson Rating Form

Listed below are nine statements related to the goals listed within the CETP Proposal. Listed below each statement are examples of methods or behaviors teachers might use to accomplish these goals. Indicate whether the student used the method and whether you agree (SA = Strongly Agree, SWA = Somewhat Disagree) or disagree (SWD = Somewhat Disagree, SD = Strongly Disagree) that the method formed a positive component of the lesson.

	Used methods			**Formed positive component of lesson**			
	Yes	No		SA	SWA	SWD	SD
1	☐	☐	**Teacher used cooperative learning methods while teaching the lesson**	☐	☐	☐	☐
			a. Teacher divided class into heterogeneous groups.				
			b. Teacher introduced topics to be covered within groups, emphasizing cooperative learning.				
			c. Teacher facilitated students working within a group environment.				
			d. Students established individual roles and responsibilities within the group.				
			e. Teacher emphasized learning through classroom projects rather than through lecture.				
2	☐	☐	**Teacher provided opportunity for hands-on training**	☐	☐	☐	☐
			a. Teacher used objects/manipulatives to encourage learning.				
			b. Hands-on training contributed to understanding of topic.				
3	☐	☐	**Teacher encouraged the use of new technology**	☐	☐	☐	☐
			a. Teacher required students to use computers or calculators.				
			b. Other technological tools were used.				
4	☐	☐	**Students are encouraged to research, present, and assess project work as a group**	☐	☐	☐	☐
			a. Students are required to present the results of their research projects.				
			b. Students are involved in the assessment of their own group's and others' group projects.				
5	☐	☐	**Teacher connected real-life events to teaching math and science principles**	☐	☐	☐	☐
			a. Teacher made use of current topical events mentioned in the media (TV, Newspapers, etc.).				
			b. Teacher drew links between the theory and real-life application of math and science principles.				
6	☐	☐	**An attempt was made to promote discourse and communication of ideas**	☐	☐	☐	☐
			a. Teacher asked open-ended questions.				
			b. Teacher's comments encouraged discussion.				
			c. Teacher praised student initiated comments.				
7	☐	☐	**It appears that course material was presented as part of a thematic unit**	☐	☐	☐	☐
			a. Material was discussed in the context of an overall theme vs. the order establish by a text.				
			b. Teacher discussed how topic applies across disciplines.				
8	☐	☐	**Teacher highlights the process of science and mathematics**	☐	☐	☐	☐
			a. Teacher provides a historical perspective .				
			b. Teacher discussed how initial hypotheses were developed into theories.				
			c. Teacher provided a meaningful context for facts instead of presenting them in isolation.				
9	☐	☐	**Critical Thinking**	☐	☐	☐	☐
			a. Teacher discussed the process involved in the derivation of conceptual models.				
			b. Teacher discussed how to assess, refine, modify, or discard conceptual models.				
			c. Teacher provided the opportunity to assess appropriate validity of facts and theories.				

Please estimate the percentage of time that was spent by students in this session

Interacting with peers _____
Working individually _____
Listening to lecture _____

APPENDIX D

Temple University College of Education Videotaped Lessons: Student Teacher Comment Form

TEMPLE UNIVERSITY
College of Education
Videotaped Lessons: Student-teacher Comment Form

The videotape of your lesson provides a small sample of your overall goals in teaching a topic. Please answer the following questions which will allow you to provide information about that you **intended** to do and how you **planned** the lesson, even though it may not have been captured on videotape.

1. What were your goals for the lesson?

2. Briefly describe how this lesson fits into the sequence of lessons that proceed in and those that will follow.

3. Did you use group activities? If so, what criteria did you use to divide the students into groups?

4. Describe the strategies you used in relaying concepts and application of concepts?

5. What kind of tasks did you assign students?

6. What are your expectations of student performance?

APPENDIX E

Temple University College of Education Student Teacher Preference for Instructional Methods

TEMPLE UNIVERSITY
College of Education

Views on Teaching Mathematics and Science Skills

The purpose of this questionnaire is to gather information about your preferences for teaching mathematics and science lessons. The items below describe a range of attitudes along various dimensions of teaching styles. Please place an "X" along each scale to indicate the extent to which the statement on the left or right comes closest to your beliefs about teaching.

We are asking for identifying information so that we can see how the types of mathematics and science courses that you have taken relat to your current attitudes about teaching. The information from this questionnaire will be aggregated and your own individual reponses will not be shared with anyone. Thank you for your help with this project.

YOUR NAME: _____

STUDENT ID NUMBER_____

	1	2	3	4	5	6	7	
1. Students learn best if they work in groups.	___	___	___	___	___	___	___	Students learn best if they work individually.
2. Students will benefit most if they are grouped according to similar abilities and common interests.	___	___	___	___	___	___	___	Students will benefit most if they work in heterogeneous groups.
3. Hands-on experience and the use of new technologies facilitate student learning.	___	___	___	___	___	___	___	The use of learning aids is a distraction and interferes with student learning.
4. Material should be taught in the order in which it is presented in the text.	___	___	___	___	___	___	___	Material should be taught within the context of overall themes.
5. Students learn best when teachers make connections between theory and real-life applications.	___	___	___	___	___	___	___	Students learn best when teachers emphasize the mastery of basic skills.
6. Dialogue and interaction in the classroom should center around the teacher.	___	___	___	___	___	___	___	Dialogue and interaction in the classroom should center around the students.
7. It is important that students give and receive feedback from each other.	___	___	___	___	___	___	___	It is NOT important that students give and receive feedback from each other.
8. Students learn best when the teacher is the focus of learning.	___	___	___	___	___	___	___	Students learn best when the students' own knowledge and personal experience are the focus of learning.
9. The teacher should allow students to set learning goals and to assess what the class has learned.	___	___	___	___	___	___	___	The teacher should be solely responsible for setting goals and for assessing what is learned.
10. The teacher's primary role is to teach content content skills.	___	___	___	___	___	___	___	The teacher's primary role is to teach students how to think.
11. The teacher should emphasize a style which encourages students to arrive at multiple answers to questions.	___	___	___	___	___	___	___	The teacher should emphasize a style which encourages students to arrive at the one correct answer to a question.

12. In a lesson on mathematics or science, what percentage of time should students spend:

Listening to lecture ____%

Working individually ____%

Interacting with peers ____%

APPENDIX F

Temple University College of Education Department of Curriculum, Instruction, and Technology in Education (CITE) Cooperating Teachers Evaluation Form

TEMPLE UNIVERSITY
College of Education
Department of Curriculum, Instruction and Technology in Education (CITE)

COOPERATING TEACHER'S EVALUATION FORM

Student Teacher _____ Date _____
Cooperating Teacher _____
School _____ Subject & Grade _____

Please rate the frequency of usage of the following methodologies based on your observations and interactions with the student teacher.

	LOW 1	2	3	4	HIGH 5
I. QUALITY OF INSTRUCTION					
Has enough understanding of the subject matter, concepts, and information on which lessons are based and is well informed about content that precedes and follows a lesson.	☐	☐	☐	☐	☐
Consistently plans well in advance, builds plans on appropriate goals, and reviews plans with the cooperative teacher before implementation.	☐	☐	☐	☐	☐
Employs varied instructional methods, including a variety of questioning techniques, and various resources and materials.	☐	☐	☐	☐	☐
Gives clear directions, explains information appropriately and implements lessons in an organized manner.	☐	☐	☐	☐	☐
Incorporates his/her own ideas in to the lesson.	☐	☐	☐	☐	☐
Consistently provides students with prompt, constructive feedback about their work and evaluates student learning appropriately.	☐	☐	☐	☐	☐
II. CLASSROOM MANAGEMENT					
Demonstrates awareness of student behavior throughout the classroom.	☐	☐	☐	☐	☐
Does preventative planning by anticipating organizational needs, instructional problems, and transitions that might affect management.	☐	☐	☐	☐	☐
Treats students equally and fairly while holding expectations appropriate to the individual.	☐	☐	☐	☐	☐
Is sensitive to students' social and emotional needs, helps students find acceptable ways to express feelings.	☐	☐	☐	☐	☐
Provides constructive feedback about students' behaviors, helping them to understand that disapproval is directed toward inappropriate behaviors rather than individuals.	☐	☐	☐	☐	☐
Effectively communicates behavioral expectations, that students understand the need for particular behaviors, procedures, and routines.	☐	☐	☐	☐	☐
Copes with the unexpected by modeling flexibility, stress management and conflicting resolution strategies.	☐	☐	☐	☐	☐
III. PROFESSIONALISM					
Respects students and earns their respect through integrity and competence.	☐	☐	☐	☐	☐
Interacts positively with the cooperating teacher by communicating effectively, displaying initiative for teaching, and helping with classroom routines.	☐	☐	☐	☐	☐
Displays professionalism through appropriate dress, punctuality, willingness to work beyond the call of duty, and positive interactions with other professionals.	☐	☐	☐	☐	☐
Demonstrates interest in personal growth by self evaluating, using references and resources to expand personal knowledge, and accepting and action upon feedback.	☐	☐	☐	☐	☐

TEMPLE UNIVERSITY
College of Education
Department of Curriculum, Instruction and Technology in Education (CITE)

COOPERATING TEACHER'S EVALUATION FORM

Listed below are nine statements that are related to the goals listed within the CETP Proposal. Please rate how frequently you observed the student-teacher use the following teaching strategies. The information you provide will be reported as group data. Data for individual respondents will not be reported.

	Never	Occasionally	Regularly
The student teacher facilitated students working within a group environment.	☐	☐	☐
The student teacher provided opportunity for hands-on learning (e.g., use of manipulatives and other objects).	☐	☐	☐
The student teacher encouraged the use of technology (e.g., computers, calculators).	☐	☐	☐
Students were involved in the researching, presenting, or assessing of their own group's and others' group projects.	☐	☐	☐
The student teacher connected real-life events to teaching math and science (e.g., mentioned current topics presented in media related to lesson).	☐	☐	☐
An attempt was made to promote discourse and communication (e.g. asking open-ended questions, praising student initiated comments).	☐	☐	☐
The material was discussed in the context of an overall theme (i.e., using thematic units rather than presenting the information in the order established by the text).	☐	☐	☐
The student teacher provided a meaningful context for facts instead of presenting them in isolation.	☐	☐	☐
The student teacher discussed how to assess, refine, modify, or discard conceptual models.	☐	☐	☐

TEMPLE UNIVERSITY
College of Education
Department of Curriculum, Instruction and Technology in Education (CITE)

COOPERATING TEACHER'S EVALUATION FORM

COMMENTS

1. STRENGTHS:

2. AREAS REQUIRING IMPROVEMENT:

3. ADDITIONAL COMMENTS (OPTIONAL):

4. IF YOU WERE TO GIVE THIS TEACHER A GRADE, WHAT GRADE WOULD YOU GIVE?

Cooperating Teacher's Signature